

ABSTRACT

A voltage regulator for an automotive alternator includes a switching transistor that controls an amount of field current supplied to a field coil of the alternator. The switching transistor is controlled in an ON-OFF fashion, and output voltage of the alternator is always monitored by a detector circuit that detects disconnection in a circuit for charging an on-board battery with the output voltage. It is determined that the disconnection occurred when a difference between the output voltage at a time when the switching transistor is turned off and the output voltage at a time when the switching transistor is turned on exceeds a predetermined value.